

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/662,425

Source: _____

Date Processed by STIC: _____

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IFWO

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/662,425

DATE: 10/20/2004

TIME: 15:11:04

Input Set : N:\CrF3\RULE60\10662425.raw.txt

Output Set: N:\CRF4\10202004\J662425.raw

1 <110> APPLICANT: MINOPRIO, PAOLA
 2 ARALA-CHAVES, MARIO
 3 COUTINHO, ANTONIO
 4 SAN MARTIN, BERNARDO REINA
 5 ROUGEOT, CATHERINE
 6 DEGRAVE, WIM
 7 COSSON, ALAIN
 8 <120> TITLE OF INVENTION: CLONING, SEQUENCING, AND EXPRESSION OF A GENE ENCODING
 9 AN EUKARYOTIC AMINO ACID RACEMASE, AND DIAGNOSTIC,
 10 THERAPEUTIC, AND VACCINATION APPLICATIONS OF PARASITE
 11 AND VIRAL MITOGENS
 12 <130> FILE REFERENCE: 03495.0200
 13 <140> CURRENT APPLICATION NUMBER: US/10/662,425
 14 <141> CURRENT FILING DATE: 2003-09-16
 15 <150> PRIOR APPLICATION NUMBER: US/09/725,945
 16 <151> PRIOR FILING DATE: 2000-11-30
 17 <150> PRIOR APPLICATION NUMBER: 60/168,631
 18 <151> PRIOR FILING DATE: 1999-12-03
 19 <150> PRIOR APPLICATION NUMBER: 60/220,207
 20 <151> PRIOR FILING DATE: 2000-07-24
 21 <150> PRIOR APPLICATION NUMBER: 60/221,117
 22 <151> PRIOR FILING DATE: 2000-07-27
 23 <160> NUMBER OF SEQ ID NOS: 26
 24 <170> SOFTWARE: PatentIn Ver. 2.1
 25 <210> SEQ ID NO: 1
 26 <211> LENGTH: 418
 27 <212> TYPE: PRT
 28 <213> ORGANISM: Trypanosoma cruzi
 29 <400> SEQUENCE: 1
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 31 1 5 10 15
 32 Pro Phe Phe Phe Cys Val Phe Pro Leu Ile Ser Arg Thr Gly
 33 20 25 30
 34 Gln Glu Lys Leu Leu Phe Asp Gln Lys Tyr Lys Ile Ile Lys Gly Glu
 35 35 40 45
 36 Lys Lys Glu Lys Lys Asn Gln Arg Ala Asn Arg Arg Glu His Gln
 37 50 55 60
 38 Gln Lys Arg Glu Ile Met Arg Phe Lys Lys Ser Phe Thr Cys Ile Asp
 39 65 70 75 80
 40 Met His Thr Glu Gly Glu Ala Ala Arg Ile Val Thr Ser Gly Leu Pro
 41 85 90 95
 42 His Ile Pro Gly Ser Asn Met Ala Glu Lys Lys Ala Tyr Leu Gln Glu
 43 100 105 110
 44

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45 Asn Met Asp Tyr Leu Arg Arg Gly Ile Met Leu Glu Pro Arg Gly His
46 115 120 125
47 Asp Asp Met Phe Gly Ala Phe Leu Phe Asp Pro Ile Glu Glu Gly Ala
48 130 135 140
49 Asp Leu Gly Met Val Phe Met Asp Thr Gly Gly Tyr Leu Asn Met Cys
50 145 150 155 160
51 Gly His Asn Ser Ile Ala Ala Val Thr Ala Ala Val Glu Thr Gly Ile
52 165 170 175
53 Val Ser Val Pro Ala Lys Ala Thr Asn Val Pro Val Val Leu Asp Thr
54 180 185 190
55 Pro Ala Gly Leu Val Arg Gly Thr Ala His Leu Gln Ser Gly Thr Glu
56 195 200 205
57 Ser Glu Val Ser Asn Ala Ser Ile Ile Asn Val Pro Ser Phe Leu Tyr
58 210 215 220
59 Gln Gln Asp Val Val Val Val Leu Pro Lys Pro Tyr Gly Glu Val Arg
60 225 230 235 240
61 Val Asp Ile Ala Phe Gly Gly Asn Phe Phe Ala Ile Val Pro Ala Glu
62 245 250 255
63 Gln Leu Gly Ile Asp Ile Ser Val Gln Asn Leu Ser Arg Leu Gln Glu
64 260 265 270
65 Ala Gly Glu Leu Leu Arg Thr Glu Ile Asn Arg Ser Val Lys Val Gln
66 275 280 285
67 His Pro Gln Leu Pro His Ile Asn Thr Val Asp Cys Val Glu Ile Tyr
68 290 295 300
69 Gly Pro Pro Thr Asn Pro Glu Ala Asn Tyr Lys Asn Val Val Ile Phe
70 305 310 315 320
71 Gly Asn Arg Gln Ala Asp Arg Gly Thr Ser Ala Lys Met Ala Thr Leu
72 325 330 335
73 Tyr Ala Lys Gly Gln Leu Arg Ile Gly Glu Thr Phe Val Tyr Glu Ser
74 340 345 350
75 Ile Leu Gly Ser Leu Phe Gln Gly Arg Val Leu Gly Glu Glu Arg Ile
76 355 360 365
77 Pro Gly Val Lys Val Pro Val Thr Lys Asp Ala Glu Glu Gly Met Leu
78 370 375 380
79 Val Val Thr Ala Glu Ile Thr Gly Lys Ala Phe Ile Met Gly Phe Asn
80 385 390 395 400
81 Thr Met Leu Phe Asp Pro Thr Asp Pro Phe Lys Asn Gly Phe Thr Leu
82 405 410 415
83 Lys Gln
85 <210> SEQ ID NO: 2
86 <211> LENGTH: 389
87 <212> TYPE: PRT
88 <213> ORGANISM: Trypanosoma cruzi
89 <400> SEQUENCE: 2
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91 1 5 10 15
92 Lys Gly Glu Lys Lys Glu Lys Lys Lys Asn Gln Arg Ala Asn Arg Arg
93 20 25 30
94 Glu His Gln Gln Lys Arg Glu Ile Met Arg Phe Lys Lys Ser Phe Thr

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95          35          40          45
96 Cys Ile Asp Met His Thr Glu Gly Glu Ala Ala Arg Ile Val Thr Ser
97          50          55          60
98 Gly Leu Pro His Ile Pro Gly Ser Asn Met Ala Glu Lys Lys Ala Tyr
99          65          70          75          80
100 Leu Gln Glu Asn Met Asp Tyr Leu Arg Arg Gly Ile Met Leu Glu Pro
101          85          90          95
102 Arg Gly His Asp Asp Met Phe Gly Ala Phe Leu Phe Asp Pro Ile Glu
103          100          105          110
104 Glu Gly Ala Asp Leu Gly Met Val Phe Met Asp Thr Gly Gly Tyr Leu
105          115          120          125
106 Asn Met Cys Gly His Asn Ser Ile Ala Ala Val Thr Ala Ala Val Glu
107          130          135          140
108 Thr Gly Ile Val Ser Val Pro Ala Lys Ala Thr Asn Val Pro Val Val
109          145          150          155          160
110 Leu Asp Thr Pro Ala Gly Leu Val Arg Gly Thr Ala His Leu Gln Ser
111          165          170          175
112 Gly Thr Glu Ser Glu Val Ser Asn Ala Ser Ile Ile Asn Val Pro Ser
113          180          185          190
114 Phe Leu Tyr Gln Gln Asp Val Val Val Val Leu Pro Lys Pro Tyr Gly
115          195          200          205
116 Glu Val Arg Val Asp Ile Ala Phe Gly Gly Asn Phe Phe Ala Ile Val
117          210          215          220
118 Pro Ala Glu Gln Leu Gly Ile Asp Ile Ser Val Gln Asn Leu Ser Arg
119          225          230          235          240
120 Leu Gln Glu Ala Gly Glu Leu Leu Arg Thr Glu Ile Asn Arg Ser Val
121          245          250          255
122 Lys Val Gln His Pro Gln Leu Pro His Ile Asn Thr Val Asp Cys Val
123          260          265          270
124 Glu Ile Tyr Gly Pro Pro Thr Asn Pro Glu Ala Asn Tyr Lys Asn Val
125          275          280          285
126 Val Ile Phe Gly Asn Arg Gln Ala Asp Arg Gly Thr Ser Ala Lys Met
127          290          295          300
128 Ala Thr Leu Tyr Ala Lys Gly Gln Leu Arg Ile Gly Glu Thr Phe Val
129          305          310          315          320
130 Tyr Glu Ser Ile Leu Gly Ser Leu Phe Gln Gly Arg Val Leu Gly Glu
131          325          330          335
132 Glu Arg Ile Pro Gly Val Lys Val Pro Val Thr Lys Asp Ala Glu Glu
133          340          345          350
134 Gly Met Leu Val Val Thr Ala Glu Ile Thr Gly Lys Ala Phe Ile Met
135          355          360          365
136 Gly Phe Asn Thr Met Leu Phe Asp Pro Thr Asp Pro Phe Lys Asn Gly
137          370          375          380
138 Phe Thr Leu Lys Gln
139          385
141 <210> SEQ ID NO: 3
142 <211> LENGTH: 29
143 <212> TYPE: PRT
144 <213> ORGANISM: Trypanosoma cruzi

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/662,425

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TIME: 15:11:04

Input Set : N:\CrF3\RULE60\10662425.raw.txt
Output Set: N:\CRF4\10202004\J662425.raw

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145 <400> SEQUENCE: 3
146     Met Arg Lys Ser Val Cys Pro Lys Gln Lys Phe Phe Ser Ala Phe
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149         20          25
151 <210> SEQ ID NO: 4
152 <211> LENGTH: 354
153 <212> TYPE: PRT
154 <213> ORGANISM: Trypanosoma cruzi
155 <400> SEQUENCE: 4
156     Met Arg Phe Lys Lys Ser Phe Thr Cys Ile Asp Met His Thr Glu Gly
157         1           5           10           15
158     Glu Ala Ala Arg Ile Val Thr Ser Gly Leu Pro His Ile Pro Gly Ser
159         20          25           30
160     Asn Met Ala Glu Lys Lys Ala Tyr Leu Gln Glu Asn Met Asp Tyr Leu
161         35          40           45
162     Arg Arg Gly Ile Met Leu Glu Pro Arg Gly His Asp Asp Met Phe Gly
163         50          55           60
164     Ala Phe Leu Phe Asp Pro Ile Glu Glu Gly Ala Asp Leu Gly Met Val
165         65          70           75           80
166     Phe Met Asp Thr Gly Gly Tyr Leu Asn Met Cys Gly His Asn Ser Ile
167         85          90           95
168     Ala Ala Val Thr Ala Ala Val Glu Thr Gly Ile Val Ser Val Pro Ala
169         100         105          110
170     Lys Ala Thr Asn Val Pro Val Val Leu Asp Thr Pro Ala Gly Leu Val
171         115         120          125
172     Arg Gly Thr Ala His Leu Gln Ser Gly Thr Glu Ser Glu Val Ser Asn
173         130         135          140
174     Ala Ser Ile Ile Asn Val Pro Ser Phe Leu Tyr Gln Gln Asp Val Val
175         145         150          155          160
176     Val Val Leu Pro Lys Pro Tyr Gly Glu Val Arg Val Asp Ile Ala Phe
177         165         170          175
178     Gly Gly Asn Phe Phe Ala Ile Val Pro Ala Glu Gln Leu Gly Ile Asp
179         180         185          190
180     Ile Ser Val Gln Asn Leu Ser Arg Leu Gln Glu Ala Gly Glu Leu Leu
181         195         200          205
182     Arg Thr Glu Ile Asn Arg Ser Val Lys Val Gln His Pro Gln Leu Pro
183         210         215          220
184     His Ile Asn Thr Val Asp Cys Val Glu Ile Tyr Gly Pro Pro Thr Asn
185         225         230          235          240
186     Pro Glu Ala Asn Tyr Lys Asn Val Val Ile Phe Gly Asn Arg Gln Ala
187         245         250          255
188     Asp Arg Ser Pro Cys Gly Thr Gly Thr Ser Ala Lys Met Ala Thr Leu
189         260         265          270
190     Tyr Ala Lys Gly Gln Leu Arg Ile Gly Glu Thr Phe Val Tyr Glu Ser
191         275         280          285
192     Ile Leu Gly Ser Leu Phe Gln Gly Arg Val Leu Gly Glu Glu Arg Ile
193         290         295          300
194     Pro Gly Val Lys Val Pro Val Thr Lys Asp Ala Glu Glu Gly Met Leu

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Input Set : N:\CrF3\RULE60\10662425.raw.txt
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195      305          310          315          320
196 Val Val Thr Ala Glu Ile Thr Gly Lys Ala Phe Ile Met Gly Phe Asn
197                      325          330          335
198 Thr Met Leu Phe Asp Pro Thr Asp Pro Phe Lys Asn Gly Phe Thr Leu
199                      340          345          350
200 Lys Gln
202 <210> SEQ ID NO: 5
203 <211> LENGTH: 330
204 <212> TYPE: PRT
205 <213> ORGANISM: Clostridium sticklandii
206 <400> SEQUENCE: 5
207 Met Lys Phe Ser Lys Gly Ile His Ala Ile Asp Ser His Thr Met Gly
208     1           5           10          15
209 Glu Pro Thr Arg Ile Val Val Gly Gly Ile Pro Gln Ile Asn Gly Glu
210     20          25          30
211 Thr Met Ala Asp Lys Lys Tyr Leu Glu Asp Asn Leu Asp Tyr Val
212     35          40          45
213 Arg Thr Ala Leu Met His Glu Pro Arg Gly His Asn Asp Met Phe Gly
214     50          55          60
215 Ser Ile Ile Thr Ser Ser Asn Asn Lys Glu Ala Asp Phe Gly Ile Ile
216     65          70          75          80
217 Phe Met Asp Gly Gly Tyr Leu Asn Met Cys Gly His Gly Ser Ile
218     85          90          95
219 Gly Ala Ala Thr Val Ala Val Glu Thr Gly Met Val Glu Met Val Glu
220     100         105         110
221 Pro Val Thr Asn Ile Asn Met Glu Ala Pro Ala Gly Leu Ile Lys Ala
222     115         120         125
223 Lys Val Met Val Glu Asn Glu Lys Val Lys Glu Val Ser Ile Thr Asn
224     130         135         140
225 Val Pro Ser Phe Leu Tyr Met Glu Asp Ala Lys Leu Glu Val Pro Ser
226     145         150         155         160
227 Leu Asn Lys Thr Ile Thr Phe Asp Ile Ser Phe Gly Gly Ser Phe Phe
228     165         170         175
229 Ala Ile Ile His Ala Lys Glu Leu Gly Val Lys Val Glu Thr Ser Gln
230     180         185         190
231 Val Asp Val Leu Lys Lys Leu Gly Ile Glu Ile Arg Asp Leu Ile Asn
232     195         200         205
233 Glu Lys Ile Lys Val Gln His Pro Glu Leu Glu His Ile Lys Thr Val
234     210         215         220
235 Asp Leu Val Glu Ile Tyr Asp Glu Pro Ser Asn Pro Glu Ala Thr Tyr
236     225         230         235         240
237 Lys Asn Val Val Ile Phe Gly Gln Gly Gln Val Asp Arg Gly Thr Ser
238     245         250         255
239 Ala Lys Leu Ala Thr Leu Tyr Lys Lys Gly His Leu Lys Ile Asp Glu
240     260         265         270
241 Lys Glu Val Tyr Glu Ser Ile Thr Gly Thr Met Phe Lys Gly Arg Val
242     275         280         285
243 Leu Glu Glu Thr Lys Val Gly Glu Phe Asp Ala Ile Ile Pro Glu Ile
244     290         295         300

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/662,425 DATE: 10/20/2004
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Input Set : N:\Crf3\RULE60\10662425.raw.txt
Output Set: N:\CRF4\10202004\J662425.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:12; N Pos. 3,12,15
Seq#:13; N Pos. 6,12,15
Seq#:14; N Pos. 3,12,15

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 8

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/662,425

DATE: 10/20/2004

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Input Set : N:\Crf3\RULE60\10662425.raw.txt
Output Set: N:\CRF4\10202004\J662425.raw

L:439 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:442 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:12
L:443 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
L:451 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:454 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:13
L:455 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:463 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:466 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:14
L:467 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0